Work Order ID 120818

Wednesday, June 11, 2014 10:33:28 AM

120818

Item ID: D4635-1 **Accept** *N900040100* **Setup Start** *NS1*

Revision ID: **Stop** *NS2*

Item Name: Fwd Ceiling Panel, LH

Start Date: 7/02/14 **Start Qty:** 1.00 *1*

Required Date: 7/02/14 **Req'd Qty:** 1.00 *1*

Reference:

Cust Item ID:

Customer:

Approvals: **Process Plan:** _____ **Date:** 14-6-11 **Tooling:** _____ **Date:** _____

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Run Start *NR1*

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr: D4635 / Revision Nbr: E									
100		0.00							68-6 07 SVA
100	HAND FINISHING THERMOFORMING					x1			
Thermoform	**Memo**	0.00							14/07/17
Thermoforming Machine	Cut Blanks								
105		0.00							
105	Dry Material								
HandThermo	**Memo**	0.00							14/07/17
Hand Finishing Thermoforming	Dry Sheet as per QSI022 POLYCARBONATE								

Temp: 275

Time IN: 4:30

Time OUT: 7:00

JUL 17 2014

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date: Work Order update only ☐

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

Rework ☐
Scrap ☐
Use-as-is ☐
Suspected Unapproved ☐

AGAINST DEPARTMENT/PROCESS

Skid-tube ☐ Crosstube ☐ Water Jet ☐ Engineering ☐
Machining ☐ Small Fab ☐ Prod. Eng. Coor. ☐ Quality ☐
Thermoforming ☐ Finishing ☐ Rec/Store/Packaging ☐ Other ☐
Large Fab ☐ Composite ☐ Supplier ☐

Root Cause		Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design	☐									
Doc/Data	☐									
Equip/Tooling	☐									
Handling/Pre	☐									
Material	☐									
Operator	☐									
Offset/Setup	☐									
Process	☐									
Supplier	☐									
Training	☐									
Transport	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear

☐ Bending
☐ Centre Not Concentric
☐ Cracks
☐ Crimp/Kink/Ripple/Wave
☐ Cuffs
☐ Crushing
☐ Heat Treat
☐ Inspection Strip in Tube
☐ Marks/Chatter
☐ Turning Sequence
☐ Wave/Twist in Tube

General

☐ Bend
☐ BOM/Route
☐ Broken/Damage/Defect
☐ Burrs
☐ Contamination
☐ Countersink
☐ Cut Too Short
☐ Drawing
☐ Drill Holes
☐ Finish
☐ Fit/Function
☐ Folio/Program
☐ Grain
☐ Hardware
☐ Inspection Incomplete/Unqualified
☐ Instructions Incomplete/Unclear
☐ Misaligned/off center
☐ Mislabeled
☐ Misread
☐ Off-set
☐ Out of Calibration
☐ Out of Sequence
☐ Outside Dimensions
☐ Over/Under tolerance
☐ Part Incorrect
☐ Part Lost/Missing
☐ Part Moved
☐ Positioned Wrong
☐ Power Loss/Surge
☐ Pressure/Forced
☐ Set-up
☐ Temperature/Cure
☐ Weld
☐ Wrong Stock Pulled
☐ Other

Work Order ID 120818

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120818

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Required Date: 7/02/14 **Req'd Qty:** 1.00 *1*

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Customer:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Run Start *NR1*

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
110		0.00							DAS 07 9-89
110	THERMOFORMING MACHINE					41			
Thermoform	**Memo**	0.00							
Thermoforming Machine	Thermoform as per Dwg. D4635-1 and Folio FTA147								14/07/17
	Dwg. Rev. E								
	Folio Rev. D								
	NOTE: Check moulds prior to using to ensure proper placement of add-ons.								
	Visually inspect for proper formation and texture								
130		0.00							
130	HAND FINISHING THERMOFORMING								
Thermoform	**Memo**	0.00							
Thermoforming Machine	Trim to Finished Dimensions								14/07/30

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

DART AEROSPACE

QA Closed: Date: Work Order update only ☐

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

Rework ☐
Scrap ☐
Use-as-is ☐
Suspected Unapproved ☐

AGAINST DEPARTMENT/PROCESS

Skid-tube ☐ Crosstube ☐ Water Jet ☐ Engineering ☐
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Large Fab ☐ Composite ☐ Supplier ☐

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design ☐									
Doc/Data ☐									
Equip/Tooling ☐									
Handling/Pre ☐									
Material ☐									
Operator ☐									
Offset/Setup ☐									
Process ☐									
Supplier ☐									
Training ☐									
Transport ☐									
Unapproved ☐									

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☐ Set-up
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☐ Weld
☐ Wrong Stock Pulled
☐ Other

Work Order ID 120818

Wednesday, June 11, 2014 10:33:28 AM

120818

Item ID: D4635-1 **Accept** *N900040100* **Setup Start** *NS1*

Revision ID: **Stop** *NS2*

Item Name: Fwd Ceiling Panel, LH

Start Date: 7/02/14 **Start Qty:** 1.00 *1*

Required Date: 7/02/14 **Req'd Qty:** 1.00 *1*

Reference:

Cust Item ID:

Customer:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Run Start *NR1*

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
140	QC6- Inspect dimensions to drawing	0.00							DAS 27 9-89
140	Dimensional Inspection								14/7/30
QC	**Memo**	0.00							
Quality Control	Fill out Inspection Sheet Rev A								
150	QC5- Inspect part completeness to step on W/O	0.00							
150									
QC	**Memo**	0.00				① 14-07-31			DAS 9 9-89
Quality Control									
160		0.00							DAS 27 9-89
160	Packaging								
Packaging	**Memo**	0.00							14/7/31
Packaging	Section Inf								

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

DART AEROSPACE

QA Closed: Date: Work Order update only ☐

Work Order: _____

Part No. _____

NCR No. _____

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Scrap ☐
Use-as-is ☐
Suspected Unapproved ☐

AGAINST DEPARTMENT/PROCESS

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Thermoforming ☐ Finishing ☐ Rec/Store/Packaging ☐ Other ☐
Large Fab ☐ Composite ☐ Supplier ☐

Root Cause		Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design	☐									
Doc/Data	☐									
Equip/Tooling	☐									
Handling/Pre	☐									
Material	☐									
Operator	☐									
Offset/Setup	☐									
Process	☐									
Supplier	☐									
Training	☐									
Transport	☐									
Unapproved	☐									

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☐ Pressure/Forced
☐ Set-up
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☐ Weld
☐ Wrong Stock Pulled
☐ Other

Item ID: D4635-1
Revision ID:
Item Name: Fwd Ceiling Panel, LH
Start Date: 7/02/14 **Start Qty:** 1.00 *1*
Required Date: 7/02/14 **Req'd Qty:** 1.00 *1*
Reference:

Accept *N900040100*
Setup Start *NS1*
Stop *NS2*
Cust Item ID:
Customer:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____
QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Run Start *NR1*
Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
170	QC21- Final Inspection - Work Order Release	0.00							
170									
QC	**Memo**	0.00				_____	14/7/31		
Quality Control									

MF
14-7-31

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date: Work Order update only ☐

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

Rework ☐
Scrap ☐
Use-as-is ☐
Suspected Unapproved ☐

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Skid-tube ☐ Crosstube ☐ Water Jet ☐ Engineering ☐
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Large Fab ☐ Composite ☐ Supplier ☐

Root Cause		Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design	☐									
Doc/Data	☐									
Equip/Tooling	☐									
Handling/Pre	☐									
Material	☐									
Operator	☐									
Offset/Setup	☐									
Process	☐									
Supplier	☐									
Training	☐									
Transport	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear

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☐ Set-up
☐ Temperature/Cure
☐ Weld
☐ Wrong Stock Pulled
☐ Other

Picklist Print

Wednesday, June 11, 2014 10:33:27 AM

Work Order ID: 120818 *120818*

Parent Item: D4635-1 *D4635-1*

Parent Item Name: Fwd Ceiling Panel, LH

Start Date: 7/02/14 **Required Date:** 7/02/14

Start Qty: 1.00 **Required Qty:** 1.00

Comments: IPP Rev. A New Issue 12/05/07 DL VERIFIED BY:JLM IPP Rev. B Dwg. Update 12/11/08 DL IPP Rev. C Dwg Update 13/07/09 DL IPP Rev D Dwg Update, Material Change 14/01/20 DL

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MLEXS.093-F6006-07		Purchased	No			100	sf	1,148.443	14.9	15			DAS 07 9-89
MLEXS.093-F6006-07									**				
GE PLASTICS LEXAN SHEET (Grey)													

14/07/17

Location	Loc Qty	Loc Code
MAT023	1148.44332	
114459	229.26	
123105	38	
124501	543.5	
m128668	181.35	
m129014	156.33332	

M129471

15 sq ft.

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

DART AEROSPACE

QA Closed: Date: Work Order update only ☐

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

- Rework ☐
- Scrap ☐
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- Suspected Unapproved ☐

AGAINST DEPARTMENT/PROCESS

- Skid-tube ☐
- Machining ☐
- Thermoforming ☐
- Large Fab ☐
- Crosstube ☐
- Small Fab ☐
- Finishing ☐
- Composite ☐
- Water Jet ☐
- Prod. Eng. Coor. ☐
- Rec/Store/Packaging ☐
- Supplier ☐
- Engineering ☐
- Quality ☐
- Other ☐

Root Cause		Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design	☐									
Doc/Data	☐									
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Operator	☐									
Offset/Setup	☐									
Process	☐									
Supplier	☐									
Training	☐									
Transport	☐									
Unapproved	☐									

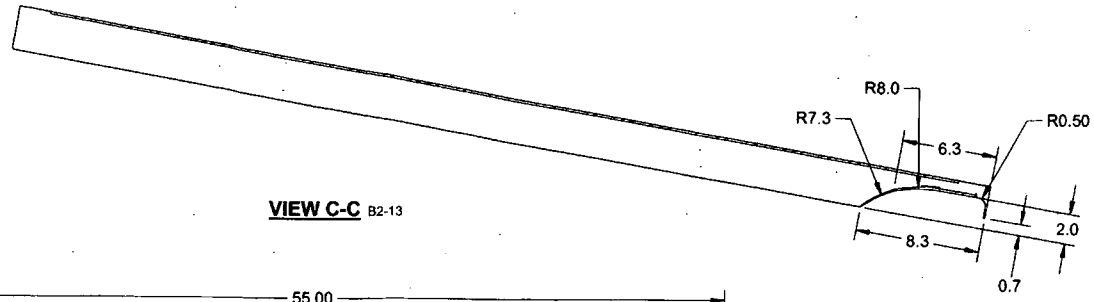
FAULT CATEGORY

Landing Gear

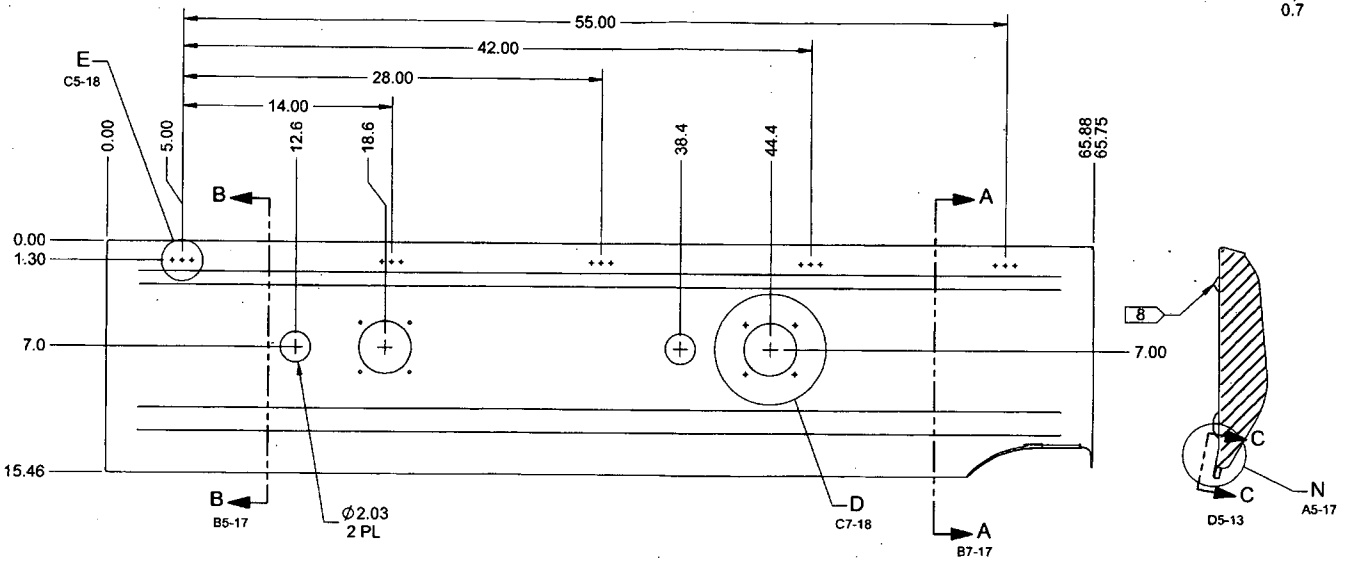
- ☐ Bending
- ☐ Centre Not Concentric
- ☐ Cracks
- ☐ Crimp/Kink/Ripple/Wave
- ☐ Cuffs
- ☐ Crushing
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- ☐ Set-up
- ☐ Temperature/Cure
- ☐ Weld
- ☐ Wrong Stock Pulled
- ☐ Other



VIEW C-C B2-13



NOTES:
1) MATERIAL: F6006 SUEDE/POLISHED GY5B133 LIGHT GREY LEXAN SHEET 0.093 THICK
(REF DART SPEC MLEXS.093-F6006-07)
2) FINISH: N/A
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: N/A
7) WEIGHT: 4.39 lbs
8) TEXTURE ON THIS SIDE
9) TRIM D4635-1 PER TOOL DT9839
10) THERMOFORM D4635-1 PER QSI 022 USING DT9847 TOOL
MIN. THICKNESS AFTER FORMING:
SHADED AREA = 0.040
RIDGES/EDGES = 0.060
ELSEWHERE = 0.070

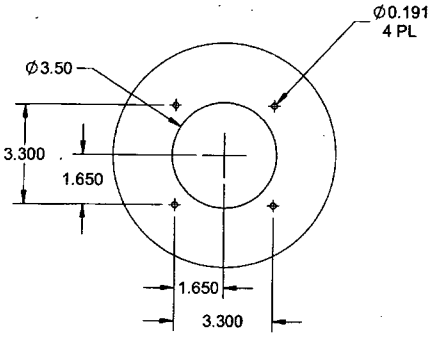
D4635-1 LH, FWD CEILING PANEL

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 120818MP
14-6-11

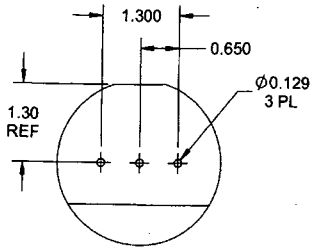
DESIGN	RF	**DART AEROSPACE** HAWKESBURY, ONTARIO, CAN
DRAWN	RF	DRAWING NO.
CHECKED	BC	D4635
MFG. APPR.		TITLE
APPROVED		OUTBOARD CEILING PA
DE APPR.		
DATE	14.01.09	

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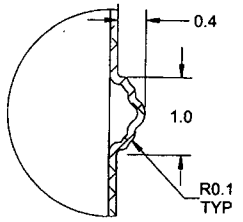
EAS
2014 -01- 2



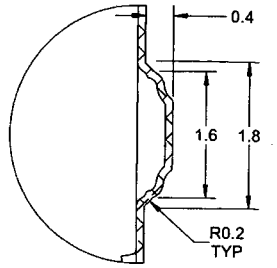
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SCALE 2X



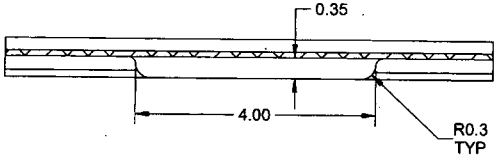
DETAIL E C7-13 B6-14 C6-15 B5-16
SCALE 4X



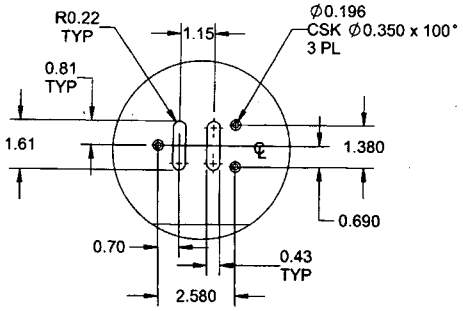
DETAIL L B2-17 B4-17 C5-17 C7-17
SCALE 1.5X



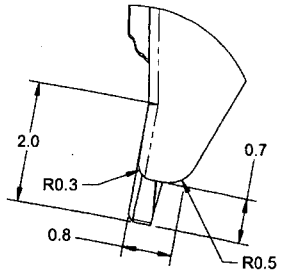
DETAIL M C2-17 C3-17 C5-17 C7-17
SCALE 1.5X



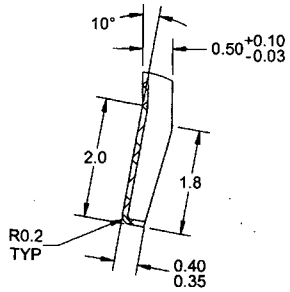
SECTION I-I B5-16
SCALE 4X



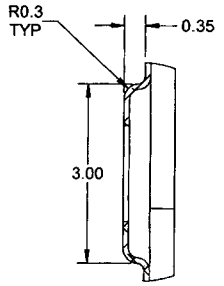
DETAIL Q C5-16
SCALE 2X



DETAIL N B2-13
SCALE 2X



DETAIL O D2-17 D3-17 B5-17
SCALE 2X



DETAIL P C2-17
SCALE 4X

RELEASED
2014-01-22

DESIGN	RF	**DART AEROSPACE LTD** HAWKESBURY, ONTARIO, CANADA
DRAWN	RF	
CHECKED	BC	DRAWING NO. D4635 REV. E SHEET 18 OF 18
MFG. APPR.		
APPROVED		TITLE OUTBOARD CEILING PANELS SCALE NTS
DE APPR.		
DATE	14.01.09	

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DART AEROSPACE LTD

Description: Fwd Ceiling Panel	Work Order: B120818
Inspection Drawing: 4635-1 Rev: E	Part Number: DJ4635-1

INSPECTION SHEET

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
14.00	+/- 0.030	14.00	✓		S Feb-21	
28.00	+/- 0.030	28.00	✓		"	
42.00	+/- 0.030	42.00	✓		"	
55.00	+/- 0.030	55.00	✓		"	
5.00	+/- 0.030	5.00	✓		S Feb-08	
12.6	+/- 0.100	12.6	✓		S Feb-21	
18.6	+/- 0.100	18.6	✓		"	
38.4	+/- 0.100	38.4	✓		"	
44.4	+/- 0.100	44.4	✓		"	
1.3	+/- 0.100	1.32	✓		S Feb-08	
7.0	+/- 0.100	7.00	✓		"	
7.00	+/- 0.030	7.00	✓		S Feb-21	
Ø2.03	+0.002 -0.001	2.027	✓		S Feb-21	
Ø 0.791	+0.005 -0.001	.796	✓		S Feb-08	
Ø3.50	+/- 0.010	3.531	✓		"	
3.300	+/- 0.010	3.293	✓		"	
1.650	+/- 0.010	1.6494	✓		"	
Ø1.29	+0.005 -0.001	1.28	✓		"	
1.300	+/- 0.010	1.3286	✓		"	
0.650	+/- 0.010	0.649	✓		"	

Measured by: DAS 27 9-89	Checked By: DAS 9 9-89	QC inspector: DAS 9 9-89	Engineering Approval (*if necessary*):
Date 14/7/31	Date 14-07-31	Date 14-07-31	Date